ROADSIDE OBSERVATION SURVEY

OF

SAFETY BELT USE IN INDIANA

June 2002

Carolyn S. Dennis

Maria L. Drake

Jose E. Thomaz

Robert C. Zahnke

Center for the Advancement of Transportation Safety
Institute for Interdisciplinary Engineering Studies
1293 Potter Engineering
Purdue University
West Lafayette, IN 47907-1293

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Indiana Governor's Council on Impaired & Dangerous Driving,
A division of the Indiana Criminal Justice Institute
Office of Traffic Safety
One North Capitol, Suite 1000
Indianapolis, IN 46204

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1.0 Executive Summary

This report provides an overview of the June 2002 Indiana roadside observation survey of safety belt use and motorcycle helmet use for the state of Indiana. The survey design, data entry, and analysis were performed by Purdue University's Center for the Advancement of Transportation Safety (CATS). Data collection was provided by several individuals, including CATS staff members and observers provided through the Governor's Council on Impaired and Dangerous Driving, and Purdue University. Training for all observers was provided by CATS staff personnel. The Governor's Council on Impaired & Dangerous Driving, Indiana Criminal Justice Institute provided funding for the project using funds received from the National Highway Traffic Safety Administration (NHTSA).

1.1 2002 Results

The seatbelt usage rate for all passenger vehicles rose by 4.8 percent.

The findings for the June 2002 survey indicate that the weighted usage rate for front-seat occupants (driver and outboard passenger-not center position) of all passenger vehicles (overall usage rate) increased from 67.4 percent in September 2001, to 72.2 percent during the 2002 survey period. This "all passenger vehicle" usage rate established a new high for Indiana. The passenger car usage rate (or 78.2 percent) also exceeded the previously high rate of 76.0 percent reached in 2001. Similarly, high usage rates were observed for both minivans (81.6 percent) and sport utility vehicles (SUVs) (78.4 percent). Although pickup trucks continue to be exempt from the Indiana Occupant Protection Law, seatbelt usage rates in these vehicles increased 5.5 percent to 47.4 percent in this most recent survey. Unfortunately, the continued low usage rate of seatbelts by pickup truck occupants negatively affects the overall usage rate, as large vans and pickup trucks represented approximately 22.8 percent of the observed vehicles. An increase in usage rates by pickup truck occupants to 60 percent would have the impact of increasing the overall usage rate in Indiana by nearly an additional 4 percent.

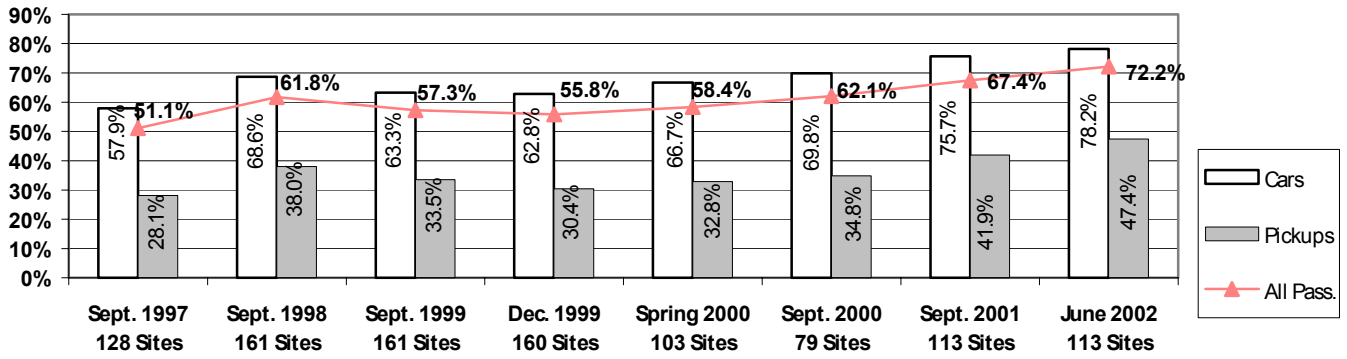
The seatbelt usage rate for pickup trucks was 47.4 percent, continuing to be much lower than other passenger vehicles.

Seatbelt usage rates increased on all urban roads. Overall, urban freeways had the highest usage rate of any roadway classification (80.5 percent for passenger cars). The lowest usage rate was 34.9 percent for pickup trucks on rural collector roads. For passenger cars, the largest gains were achieved on urban arterial roads.

Female drivers continued to demonstrate higher usage rates (79.4 percent) than male drivers (63.0 percent).

Female drivers continued to demonstrate higher usage rates (79.4 percent) than male drivers (63.0 percent). Last year, young male drivers of pickup trucks posted the lowest numbers for restraint use at 29.9 percent. In 2002, the lowest usage rates were demonstrated by 'older' (22+ years old) male drivers of pickup trucks (42.5 percent). Young male drivers of pickup trucks in 2002 were observed using their seatbelts 54.2 percent of the time. Usage rates for this age/gender group nearly doubled between the two surveys. However, the age of a driver is a subjective decision made by the observer. Depending upon the observer, reported usage rates could have been positively influenced if a greater number of older drivers were categorized by the observer as a "younger" driver.

Figure 1: Safety Belt Usage September 1997–June 2002 (Weighted)



2.0 Survey Design

2.1 Introduction and History

The 2002 Indiana Roadside Observation Survey of Safety Belt Use was the twenty-seventh in a series of surveys originally designed in 1985. The first through seventeenth surveys (1986 through 1993) all were conducted using a common protocol. In 1994, the survey was redesigned in conformance with guidelines published in the *Federal Register* [vol. 57, no. 125, June 2, 1992: 2889928904] by the National Highway Traffic Safety Administration. The revised design was discussed in the 1994 report (see also the 1998 report). For 1994 and earlier surveys, reporting of occupant restraint use was confined to passenger cars. In 1995, the survey was modified to permit reporting for a wider variety of vehicle types, including minivans, sport utility vehicles, and pickup trucks. Large passenger vans were included for the first time in the 1998 survey, as required by new NHTSA regulations. All vehicles identified as commercial have been excluded in each of the surveys through the 2000 survey. For the first time, the 2001 survey included commercial vehicles, with the exception of semi-tractor trailers and other large trucks with a gross vehicle weight greater than 10,000 lbs. that continue to be excluded from the survey. The 2002 survey did not introduce any further protocol changes.

A review of the 1994 survey design was conducted prior to the 1998 survey for all states through the NHTSA regional offices. The functional roadway classification for each of the 128 sites used in 1997 was verified using the Indiana Department of Transportation (INDOT) county and city functional classification maps. It was found that only 9 of 28 sites classified as a local road in the 1997 survey analysis were actually a local road in the INDOT database. There were, in fact, 54 arterial sites as compared to the 42 sites considered to be arterial in the 1997 analysis. To correct for this, 16 replacement sites and 33 additional new sites were selected. The 1998 review of the 1994 design also

revealed that two of the counties (LaPorte and Porter) selected to represent high vehicle miles traveled (VMT) would not qualify for selection if the most recent VMT numbers were used (at that time-1997). Since the usage rates were expected to be more variable for local road sites, and the traffic volume much lower than for arterial and collector roadways, a high percentage of these new sites were classified as local roadways. The 1998 survey included 20 local rural sites and 20 local urban sites.

The spring 2000, 103-site survey used a proportional, random sample of the sites used for the 1998 and 1999 survey. The 1994 survey design called for eight roadway classes (four urban and four rural) and a classification of counties into three strata based on total VMT by county. Thus, there were three strata by eight roadway classes, or 24 cells in the sample design. The number of sites representing each cell varied, and since the percentages of VMT accounted for by a roadway class within each stratum were unequal, a single site represented three of the cells in the sample design. It was decided to retain these three sites in the survey and randomly select 100 of the other 158 sites to maintain the same proportions of sites in each of the other 21 cells. The desired number of sites for each cell was computed to maintain the same proportions as in the 1999 survey. A random number table was then used to select 100 sites from the 158. Once the desired number of sites for a cell had been chosen, additional choices that would belong to that cell were not accepted for the sample. While there was no requirement that all of the 24 counties represented in the 1994 survey design be included, at least one site from each of the counties was retained in the survey. The spring 2000 survey was conducted to validate the changes, prior to the State survey being conducted in the fall of 2000.

Since NHTSA permits states to exclude low population counties that comprise no more than 15 percent of the state's total population from their seatbelt observational surveys, it was decided to examine the degree to which Indiana's weighted usage rates would be affected if exclusion of low population counties was exercised. The most recent US Census Bureau estimates for Indiana county populations were used to rank-order Indiana counties by population to determine the cumulative percents of total population. Eight of the surveyed counties (Perry, Fountain, Tipton, Newton, Decatur, Ripley, Daviess, and Franklin) fell into the lowest population counties that could be excluded. This reduced the total number of sites by 24 to 79 sites. Appropriate VMT weights were calculated for exclusion of the eight low-population counties.

NHTSA approved the redesigned survey for reporting Indiana's Year 2000 usage rates that employed these 79 sites and grouped the 16 represented counties into two groups (eight rural and eight urban). NHTSA likewise approved combining the local and collector roads by rural/urban locale into one rural category and one urban category for analytical purposes. All of the September 2000 weighted rates reported here use this survey design.

Prior to the September 2001 survey, a thorough analysis of the current survey design was conducted. As a result, it was recommended that the number of sites be increased in selected areas. Areas identified for the increase fell into two general categories. First, the larger cities' and counties' sites were increased to better represent their population impact on the entire state survey. Second, road classifications that historically represent a wider range of variation for seatbelt

usage rates in the observational results also were increased. These modifications were submitted to NHTSA for their review and subsequent acceptance. The approved survey modifications increased the number of sites from 79 to 113, while continuing to exclude the lowest 15 percent population counties from the survey design.

The 113 sites were clustered into logical day trips. Each cluster was then assigned a randomly generated start time and day of the week. Data were collected on all days of the week. The collection day and time used in 1998 through 2000 for existing sites were retained whenever feasible. When scheduling constraints dictated a change in time or day, the proportion of sites assigned to weekend days, morning rush, evening rush, and midday time periods were maintained. Observation sessions were evenly distributed during daylight hours (the time period between 6:30 a.m. and 6:30 p.m.). For the September 2001 survey, traffic was observed for exactly 45 minutes at each of the sites (the same observation protocol used in September 2000). Seatbelt use was recorded for front-seat outboard occupants only (driver and right front passenger, if present). The formulas used to estimate usage rates, standard deviations, and relative precision for the 2002 survey can be found in the 1998 report.

2.2 2002 Survey Design

Commercial vehicle observations that were collected for the first time in the September 2001 survey were continued in 2002, using the same protocols as the previous year. In this year's report, Table 2 includes the reported results both with and without commercial vehicle observations. Because commercial vehicles are typically not passenger cars and the occupants are not required to use seatbelts, their inclusion would lower the overall reported results for Indiana.

The following counties (number of sites) were represented in the 2002 survey.

Allen (9)	Clark (4)	Clinton (2)	DeKalb (2)
Elkhart (7)	Gibson (4)	Hamilton (6)	Hancock (5)
Hendricks (5)	Henry (3)	Howard (5)	Jackson (6)
Lake (10)	LaPorte (8)	Marion (8)	Marshall (4)
Morgan (1)	Porter (7)	Tippecanoe (6)	St. Joseph (3)
Vanderburgh (8)			

Usage rates were calculated based upon the front seat outboard occupants' use of the shoulder harness. For each of the eligible occupants, a determination was made as to whether the occupant was properly wearing the shoulder harness (yes), whether s/he was improperly restrained (shoulder harness behind his/her back) or unrestrained (no), or whether it was impossible to determine if the occupant was properly using a restraint (unknown). All children located in the front passenger seat occupying a car or booster seat were excluded from the counts due to the observers' inability to accurately determine restraint status.

Motorcycle helmet use was collected only while observers were positioned at their assigned sites. This determination was made due to the observers' limited knowledge of roadway classifications making the collection of accurate in-transit data unreliable. Further, in-transit motorcycle data collection creates driver distraction on behalf of the observer. Thus, in-transit helmet use data collection was not conducted.

3.0 Survey Results

State survey data were collected from June 2 - 8, 2002. Usage rates were calculated based upon the front seat outboard occupants' use of the shoulder harness.

For the 2002 survey, a total of 16,342 vehicles were observed, including 16,342 drivers and 4,240 eligible front seat passengers.

For the 2002 survey, a total of 16,342 vehicles were observed (excluding motorcycles and commercial vehicles), including 16,342 drivers and 4,240 eligible front seat passengers, for a total of 20,582 total occupant observations. This compares with a total of 18,394 observations in the 2001 study, representing an increase of 11.9 percent in the number of observations. The 2002 survey consisted of the same 113 sites in the 2001 survey.

Table 1 summarizes restraint usage by vehicle type:

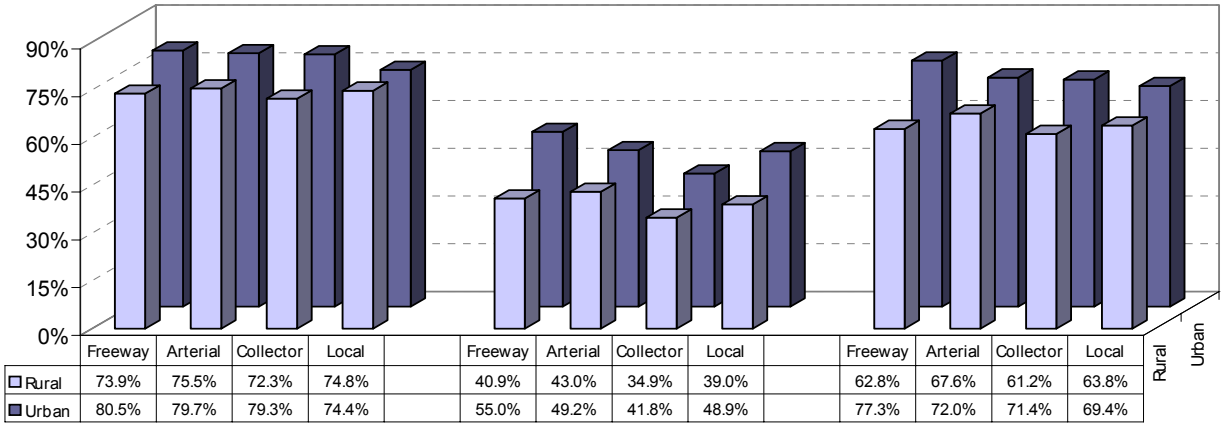
Table 1: 2002 Seatbelt Usage Summary
113-Sites

Vehicle Type	Percent Restrained Weighted	Percent Restrained Non-Weighted	Relative Precision	95 Percent Confidence Interval
Cars	78.2 %	77.4 %	1.0%	78.2% +/- 1.5%
Pickups	47.4 %	44.9 %	2.7%	47.4% +/- 5.2%
All Passenger Vehicles	72.2 %	71.1 %	1.0%	72.2% +/- 1.4%

3.1 Restraint Usage by Roadway Class

Indiana roadways are divided into a number of classifications. For the purposes of seatbelt restraint calculations, roadways are classified as freeways (interstates), arterial, collector, and local roads. Population information also further refines the road classifications to either rural or urban areas. From the results of the September 2001 survey, the lowest percentage of restraint use was 37.7 percent for pickup truck occupants observed traveling on rural collector roads. The highest percentage (84.3 percent) of seatbelt use observed was for occupants of passenger vehicles traveling on urban freeways. Indiana continues to have a large deviation in results as measured by the type of road and vehicle observed. The absolute difference in usage rates decreased slightly from 46.6 percent in 2001, to 45.6 percent in the most recent survey.

Figure 2: Restraint Usage by Vehicle Type and Road Class



	Cars				Pickups				All Vehicles			
	Freeway	Arterial	Collector	Local	Freeway	Arterial	Collector	Local	Freeway	Arterial	Collector	Local
Rural	73.9%	75.5%	72.3%	74.8%	40.9%	43.0%	34.9%	39.0%	62.8%	67.6%	61.2%	63.8%
Urban	80.5%	79.7%	79.3%	74.4%	55.0%	49.2%	41.8%	48.9%	77.3%	72.0%	71.4%	69.4%

The 2002 survey's lowest usage rates (34.9 percent) were observed on rural collector roads for occupants of pickup trucks, with the highest rates observed for occupants of passenger cars traveling on urban freeways (80.5 percent). Gains were made in all areas for both cars and pickup trucks except in the following areas: Seatbelt usage for cars decreased on urban and rural interstates and rural arterial roadways. Seatbelt usage decreased for trucks on all rural roadways except arterials, as well as urban collector roads. When a comparison is made between the lowest and highest roadway classifications of restraint use for cars, the differential in 2001 was 12.6 percent, and for 2002 was 8.2 percent. This might be interpreted as occupants of cars, for those who wear seatbelts wear them on all types of roads. They appear to be less likely to just buckle up when they are entering a higher speed limit road. Pickup truck occupants, on the other hand, with the 20.1 percent difference between the high usage road classification area and the lowest road classification use area, continue to be more likely to buckle up when a perceived greater risk of serious injury is likely if a crash does occur (freeways). A substantial decrease in usage (6.5 percent) was observed on rural freeways for occupants of pickup trucks between the 2001 and 2002 surveys. In assessing these statistical results, some caution has to be introduced because of sample size and sampling error. However, the decrease in pickup usage rates on interstates is concerning as these roads have a greater potential for higher speed crashes, with a greater likelihood of injury, especially if the occupant is not properly restrained. These statistical decreases for pickup trucks raise the opportunity for further investigation of this data, and might question the effect of media and education programs on reaching and appealing to pickup truck occupants. Changing the primary law to include pickup trucks would probably have the greatest impact on increasing belt usage rates.

3.2 Restraint Usage by Vehicle Type

Minivans represented the highest overall usage rate for all occupants at 81.6 percent.

Pickup trucks and large vans in the 1998 through the 2000 surveys represented an increasing percentage of the observed vehicles (from 21.5 percent to 24.2 percent of the observed vehicles). The percentage dropped to 22.5 percent in September 2001. The June 2002 survey saw that mix hold fairly constant at 22.3 percent of the observed vehicles. This group of vehicles continues to represent nearly one out of four vehicles on Indiana roads, and yet, these vehicles are exempt from Indiana's primary law. Between the 2001 survey and the 2002 survey, there was an approximately 2.1 percent increase in restraint use among the typically higher restraint usage rate vehicles (cars, minivans, and SUVs). For the first time, SUVs recorded a slightly higher usage rate than cars for all occupants (78.4 percent versus 77.4 percent). At the same time, a 2.6 percent increase was observed in the typically lower restraint usage rate vehicles (pickup trucks and large vans). However, the increase in usage rates for these vehicles was significantly less than the 8 percent gain made between 2000 and 2001. The 2.1 percent gain in cars, minivans, and SUVs is considered to be a substantial improvement, given their already high usage rates. Minivans represented the highest overall usage rate for all occupants at 81.6 percent. While there has been much concern and discussion of seatbelt usage laws relative to SUVs (the ability of occupants to claim exemption due to the vehicle being registered as a truck), this group of vehicles has an overall unweighted usage rate of 78.4 percent. This represents a 4.3 percent increase from 2001.

3.3 Restraint Usage by Gender and Role

Nearly two out of five male drivers continue to drive without using safety restraints.

The lowest usage rate persists among male passengers riding in pickup trucks (31 percent).

Historically, females (drivers and passengers) have been observed to have higher usage rates of restraint systems than their male counterparts. This pattern did not change in 2002. Overall, female drivers' use rate (unweighted) increased 0.7 percent to 79.7 percent, while the male driver usage rate (unweighted) increased 3.1 percent to 65.0 percent. Nearly one out of three male drivers continues to drive without using safety restraints. The highest usage rate (83.4 percent) was found to be female occupants (drivers and passengers combined) of minivans, while the lowest usage rate persists among male passengers riding in pickup trucks (31.0 percent). This represented a 7.8 percent decrease from 2001 results. As also seen in 2001, the role of the occupant (driver versus passenger) has little effect on whether or not the occupant will be belted. Male occupants continue to pull down the overall results for the State.

Table 2: Indiana June 2002 Unweighted Restraint Usage by Vehicle Type, Gender, and Race

Vehicle Type	All Drivers R	NR	U	Percent Restrained	Front-Seat Passengers R	NR	U	Percent Restrained	Eligible Occupants Percent Restrained
Cars	6,907	1,997	27	77.6%	1,777	538	32	76.8%	77.4%
Pickup Trucks	1,520	1,821	14	45.5%	310	421	7	42.4%	44.9%
Minivans	1,444	339	7	81.0%	467	93	6	83.4%	81.6%
Large Vans	192	178	3	51.9%	58	40	3	59.2%	53.4%
SUV	1,762	480	9	78.6%	435	124	9	77.8%	78.4%
Commercial	468	601	3	43.8%	56	66	0	45.9%	44.0%
Motorcycles	124	233	1	34.7%	28	50	2	35.9%	34.9%
All Pass. W Commercials	**12,293**	**5,416**	**63**	69.4%	**3,103**	**1,282**	**57**	70.8%	69.7%
All Pass. W/O Commercials	**11,825**	**4,815**	**60**	71.1%	**3,047**	**1,216**	**57**	71.5%	71.1%

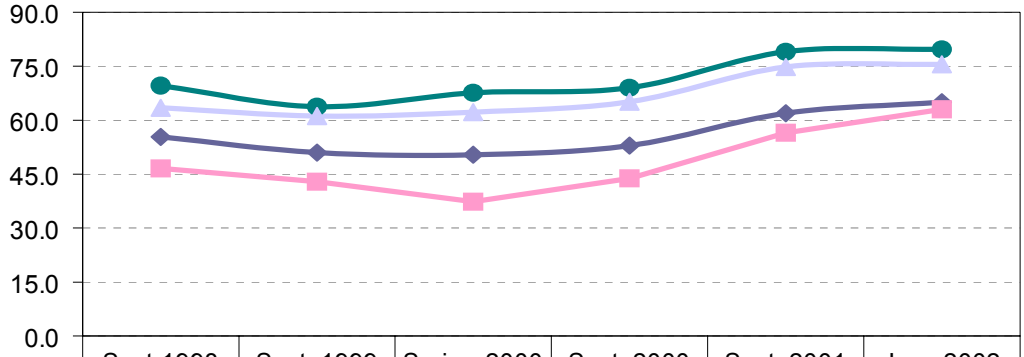
	Female Drivers				Female Front-Seat Passengers				Both
Cars	3,458	820	15	80.8%	1,229	325	16	79.1%	80.4%
Pickup Trucks	275	188	3	59.4%	195	188	5	50.9%	55.6%
Minivans	770	157	3	83.1%	320	60	4	84.2%	83.4%
Large Vans	69	36	1	65.7%	42	19	2	68.9%	66.9%
SUV	860	181	6	82.6%	296	83	4	78.1%	81.4%
Commercial	43	39	0	52.4%	25	9	0	0.0%	58.6%
Motorcycles	5	6	0	45.5%	25	45	2	0.0%	37.0%
All Pass. W Commercials	**5,475**	**1,421**	**28**	79.4%	**2,107**	**684**	**31**	75.5%	78.3%
All Pass. W/O Commercials	**5,432**	**1,382**	**28**	79.7%	**2,082**	**675**	**31**	75.5%	78.5%

	Male Drivers				Male Front-Seat Passengers				Both
Cars	3,442	1,174	12	74.6%	502	198	15	71.7%	74.2%
Pickup Trucks	1,242	1,632	11	43.2%	100	223	2	31.0%	42.0%
Minivans	673	182	4	78.7%	124	25	1	83.2%	79.4%
Large Vans	122	142	2	46.2%	15	20	1	42.9%	45.8%
SUV	898	299	3	75.0%	122	40	5	75.3%	75.1%
Commercial	425	562	3	43.1%	30	56	0	34.9%	42.4%
Motorcycles	118	227	1	34.2%	1	4	0	20.0%	34.0%
All Pass. W Commercials	**6,802**	**3,991**	**35**	63.0%	**893**	**562**	**24**	61.4%	62.8%
All Pass. W/O Commercials	**6,377**	**3,429**	**32**	65.0%	**863**	**506**	**24**	63.0%	64.8%

Legend: R= Restrained; NR=Not Restrained; U=Unknown Restraint; All Pass.=All non-commercial Passenger vehicles; SUV=Sport Utility Vehicles

Figure 3 shows the historical results since 1998 through the most recent survey for both gender and role (driver or passenger) of the occupant. The most recent survey shows some improvement for female occupants with the greatest gains recorded with male occupants, specifically, male passengers. This is most likely attributed to the fact that females already have a higher usage rate, making improvement more difficult to demonstrate. Those females that continue to choose to not be belted are more than likely not routine seatbelt users and may be also associated with a second vehicle in the family being a pickup. However, the male occupants continue to provide the greatest opportunity for improvement.

Figure 3: Unweighted Restraint Usage by Gender and Role (no commercial veh.)



	Sept.1998 161 sites	Sept. 1999 161 sites	Spring 2000 103 sites	Sept. 2000 79 sites	Sept. 2001 113 sites	June 2002 113 sites
Male Driver	55.3	51.0	50.4	52.9	61.9	65.0
Male Passenger	46.6	42.9	37.3	43.8	56.5	63.0
Female Driver	69.6	63.7	67.6	69.0	79.0	79.7
Female Passenger	63.4	61.1	62.2	65.1	74.8	75.5

3.4 Restraint Usage by Age of Driver and Passengers

When the young driver had no occupant, his or her usage rate was 71.0 percent, about 1.2 percent below the overall weighted average for the state.

The September 2000 Indiana survey report was the first to compare seatbelt use by driver age and the age of any front-seat, outboard passenger, if one was present. The determination that the driver is young was a judgment decision based upon the field observer's best estimate. The targeted cutoff age for a young driver is less than 21 years old. Figure 4 graphically displays the 2002 results. When the young driver had no occupant, his or her usage rate was 71.0 percent, about 1.2 percent below the overall weighted average for the state. However, when an older passenger (observer's estimate of 21 years old and over) accompanied a young driver, the usage rate of the young driver increased to 85.2 percent, well above the overall weighted average for the state. When young passengers accompanied a young driver, the usage rates for the young passengers (69.6 percent) were in the same range as that of the young driver. When young passengers were observed riding with older drivers, seatbelt use

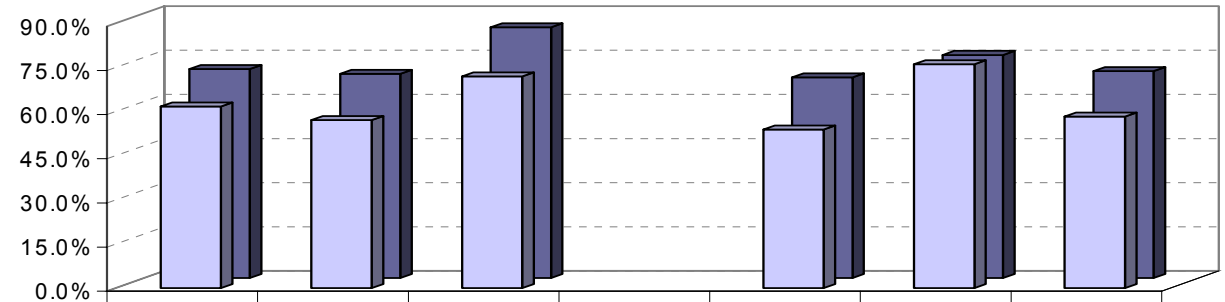
When a young passenger accompanied a young driver, the young driver's usage rate fell to 69.6 percent, compared to the young driver/older passenger rate of 85.2 percent.

rates varied greatly depending upon the gender of the young passenger. For young female passengers riding with an older driver, those passengers had an observed usage rate of 75.8 percent, while the young male passengers had a usage rate of only 70.3 percent when being driven by an older driver. Although young males continue to buckle up less than young female passengers when riding along side an older driver, the restraint usage rate for young male passengers riding with older drivers increased 12 percent from the 58.3 percent observed in 2001.

For the young driver, seatbelt use increased from 57.1 percent in 2001 to 58.1 percent in 2002.

When compared with the September 2001 results, five of the six combinations in figure 4 showed large increases for 2002. Particularly notable were the usage rates for both young passengers and young drivers when observed riding together. The usage rate for young passengers increased from 57.8 percent in 2001 to 69.6 percent in 2002. What is particularly striking about the result is that this age group is particularly susceptible to significant peer pressure. Clearly, both young drivers and young passengers are influenced by the actions and perhaps, the influence of others in the vehicle as it relates to the proper usage of seatbelts. Nonetheless, while the gains achieved this year are commendable, the usage rate for this group of occupants continues to be approximately 2.6 percent less than the overall state usage rate, leaving considerable room for continued focus and improvement.

Figure 4: Usage Rates for Young Drivers and Passengers



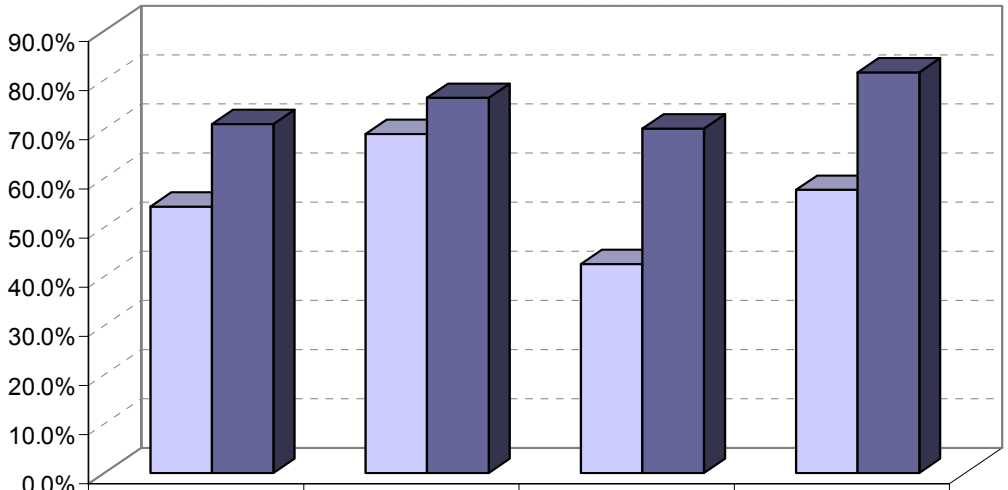
	YD no P	YD - YP	YD - OP		YP - YD	YFP-OD	YMP-OD
2001	61.7%	57.1%	71.9%		53.9%	76.1%	58.3%
2002	71.0%	69.4%	85.2%		68.2%	75.8%	70.3%

Legend

YD-no P: Young Driver - no **P**assenger
YD-YP: Young Driver - **Y**oung **P**assenger
YD-OP: Young Driver - **O**lder **P**assenger
YP-YD: Young Passenger - with **Y**oung **D**river
YFP-OD: Young Female Passenger - with **O**lder **D**river
YMP-OD: Young Male Passenger - with **O**lder **D**river

The results from the 2002 survey would indicate that usage rates of the younger drivers, both female and male in pickup trucks were higher than the results for the older drivers with the same vehicle profile. If valid, this would be a reversal from previous years' surveys. This change, however, has to be addressed with reservation, as again, age is a judgement decision on the part of the observer. Young male drivers of pickup trucks had a seatbelt usage rate of 54.2 percent, while older male pickup truck drivers had a usage rate of 42.5 percent. Likewise, younger female drivers of pickup trucks had a reported seatbelt usage rate of 69.0 percent, while their older counterparts had a reported usage rate of 57.7 percent. Figure 5 below displays the most recent 2002 survey results comparing restraint use among pickup truck drivers and all other passenger vehicles by driver age and gender.

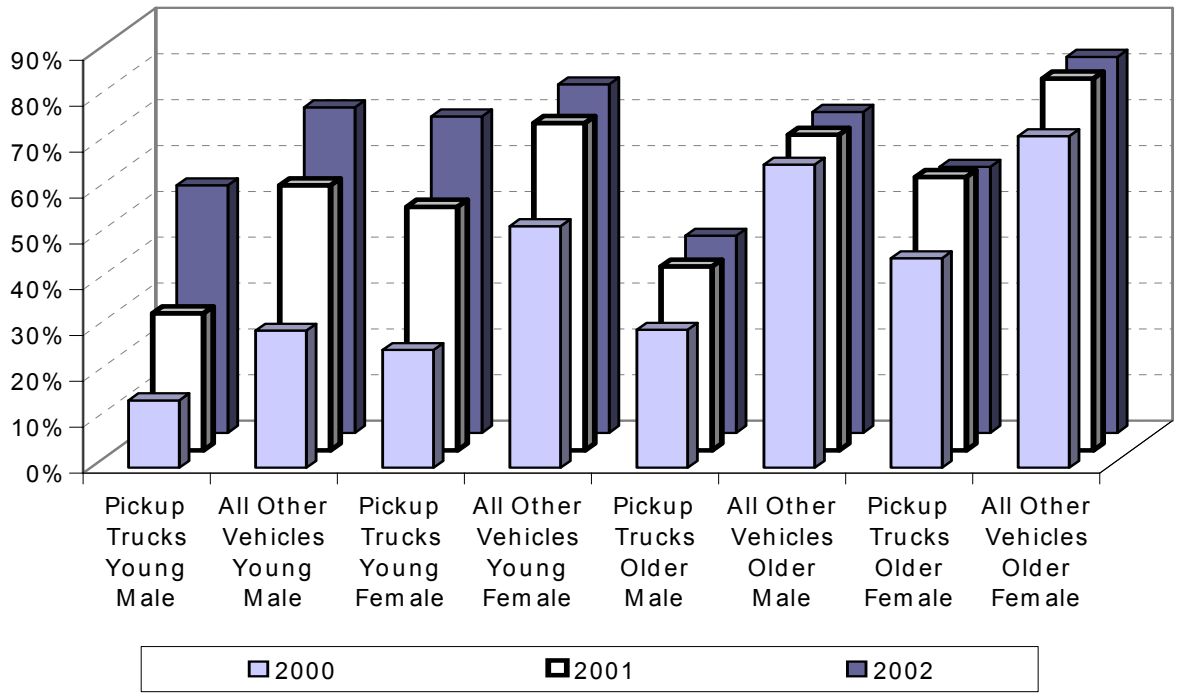
Figure 5: Usage Rates of Pickup Truck Drivers vs. Other Vehicles



	Young Male	Young Female	Older Male	Older Female
Truck	54.2%	69.0%	42.5%	57.7%
Other Vehicles	71.0%	76.4%	70.1%	81.5%

A further comparison of the above results, but with comparisons to both 2000 and 2001 is shown in Figure 6.

Figure 6: Usage Rates of Pickup Truck Drivers Compared to Drivers of All Other Vehicles for 2000, 2001, and 2002



With, perhaps, the exception of "older female pickup truck operators," substantial improvements in seatbelt use has been gained in each of the above areas. The current higher usage rates can be claimed as victories for the recent seatbelt programs and campaigns. The areas of lower use continue to be areas of opportunities to increase belt usage rates, and are key factors if the State is going to achieve overall usage rates greater than 80 percent.

3.5 Motorcycle Helmet Usage Rates

The overall helmet usage rate for 2002 was 34.9 percent.

The overall helmet usage rate for 2002 was 34.9 percent, and corresponds to the 32.8 percent reported in 2001, and 31.8 percent reported in 2000. The gender detail and role of the occupant are displayed in Table 2, shown earlier. In the June 2002 survey, data was only collected during the assigned observation periods, not while in transit from one site to another. This change was made because of the difficulty in the observer accurately determining the correct road classification for those observations made on the transit roads, as well as the driver distraction created by collecting this data. As a result, the total number of motorcycle observations was only 438 during this survey period.

In analyzing the historically low usage rates, there may be a parallel with motorcycle helmet use and pickup truck seatbelt use, as Indiana law does not

mandate the use of safety systems for those two vehicle types. Helmet use receives little, if any educational attention as to the value of helmets, while pickup trucks receive heavy media attention regarding the correct use of safety restraints. The increased usage by pickup truck occupants may provide value to motorcyclists in support of an educational campaign in this area.

4.0 Conclusions and Recommendations

Analysis of the June 2002 Indiana Observation Survey results showed positive improvements in all areas as defined by vehicle type, roadway type, gender, rural and urban locales, and for both driver and front seat occupants.

The experienced female driver and/or occupant, other than pickup truck occupants, have clearly heard and continue to practice the message that seatbelts save lives, as demonstrated by the seatbelt usage rate of this group.

The opportunities to increase the usage of seatbelts rests with the male occupants, but not necessarily just the inexperienced male driver; the message needs to be delivered to virtually all drivers of pickup trucks.

While Indiana achieved an overall usage rate of 72.2 percent, this rate could have been increased with the following changes:

- Pickup trucks, estimated to account for nearly one out of five vehicles on Indiana's roads (based upon Indiana's Bureau of Motor Vehicle registrations), with a combined male occupant usage rate of 41.9 percent, would increase the overall usage rate by an estimated:
    - 3 percent with an increase in the male occupant pickup usage rate to 60 percent;
    - 5 percent with an increase in the male occupant pickup usage rate to 70 percent.
- The Click It or Ticket campaign appears to have been an effective program for the younger and, perhaps, the inexperienced drivers. However, attention continues to be needed to focus on the male occupant.

While there continues to be a gap between seatbelt usage rates in rural versus urban locales, that gap has decreased. Likewise, the gap that has historically existed between local/collector roads and major roads such as arterial roads and interstates also has narrowed. This gap is generally in the 6 – 10 percent range, perhaps indicating that occupants are adjusting to the habit of wearing seatbelts, rather than using them only for higher speed travel (freeways and interstates). While rural areas represent a lower population area and may have less exposure to law enforcement (through enforcement zones), this area continues to represent nearly 3 out of 4 deaths that occur on Indiana highways and roads. While current jurisdictional limitations may prevent one law enforcement agency from expanding its role into the more rural regions contiguous to its current responsibilities, collaborative efforts need to be explored to increase the presence of law enforcement in these more rural areas of Indiana. Due to their visibility and media attention, the use of enforcement zones is suspected to be a major contributor in the narrowing of that gap.

Overall, the seatbelt usage rates increased by 2.1 percent from the September 2001 survey, with passenger cars increasing by 1.6 percent (unweighted), and pickup trucks increasing by 3.0 percent (unweighted).

Emphasis within Indiana needs to continue to be on the passage of a primary law for pickup trucks. There is no valid reason to exclude pickup trucks from any seatbelt requirements. (Note–the current Indiana law excludes pickup truck occupants from all seatbelt usage requirements, including allowing unrestrained children (4+) to ride in the beds of pickup trucks or cargo areas of passenger vehicles, with the exception of requiring that a child under the age of four must be restrained in a pickup truck). Secondly, Indiana needs to pursue increased usage of seatbelts by the male driving group. Without these changes, Indiana will continue to lag behind other primary law seatbelt states.

5.0 References

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